



# MARK1 Protein Crystal

**Catalog: CBCRY40**

## PRODUCT INFORMATION

<b>Name</b>	MARK1 Protein Crystal
<b>Cat No.</b>	CBCRY40
<b>Fragment</b>	Residues 38-364
<b>Protein Description</b>	MAP/microtubule Affinity-regulating Kinase 1
<b>Background</b>	<p>The microtubule-associated protein (MAP)/microtubule affinity regulating kinase (MARK)/Par-1 phosphorylates microtubule-associated proteins tau, MAP2, and MAP4 and is involved in the regulation of microtubule-based transport. There are four isoforms of MARK in the human kinome that form a subfamily of the Snf1/AMP-activated protein kinase family of kinases within the calcium/calmodulin-dependent protein kinase group. MARK kinases are relatively large; the longest isoform, MARK1, comprises 795 amino acids. It is involved in the regulation of neuronal migration through its dual activities in regulating cellular polarity and microtubule dynamics, possibly by phosphorylating and regulating DCX. MARK1 also acts as a positive regulator of the Wnt signaling pathway, probably by mediating phosphorylation of dishevelled proteins (DVL1, DVL2 and/or DVL3).</p>
<b>Protein Classification</b>	Signaling Protein, Transferase
<b>Structure Weight</b>	301702.41 Da
<b>Method</b>	X-Ray Diffraction
<b>Resolution</b>	2.60 Å
<b>Reference</b>	<p>Marx A, Nugoor C, Mueller J, Panneerselvam S, Timm T, Bilanz M, Mylonas E, Svergun DI, Mandelkow E-, Mandelkow EJ. Biol. Chem. Structural variations in the catalytic and ubiquitin-associated domains of microtubule-associated protein/microtubule affinity regulating kinase (Mark) 1 and mark2. (2006) 281 p.27586</p>